

Development and Application of a
Water Supply Financial Reporting System
Volume 1

Kenton County Water District No. 1
Ft. Mitchell, KY

Prepared for

Municipal Environmental Research Lab.
Cincinnati, OH

Aug 83



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16. ABSTRACT This two-volume report describes the development of a computerized financial reporting system (FRS) for the Kenton County, Kentucky, Water District No. 1 (KCWD). The system was designed and implemented after a computer based cost analysis system (CAS) had proved to be advantageous and had demonstrated the value of automated data processing. Together the two systems will help the utility control costs and manage and rapidly expanding system more effectively and efficiently. The objectives of the FRS were (1) to provide computer programs that produce a general ledger accounting system and financial reports, (2) to function as a modular system that can be used either independently or with the CAS, and (3) to verify its satisfactory operation through practical applications at KCWD.		
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DEVELOPMENT AND APPLICATION

OF A WATER SUPPLY

FINANCIAL REPORTING SYSTEM

VOLUME I

by

Victor C. Fender
Kenton County, Kentucky, Water District No. 1
Ft. Mitchell, Kentucky 41017

James I. Gillean
William L. Britton, Jr.
ACT Systems, Inc.
Winter Park, Florida 32789

Cooperative Agreement
CR 806448-01

Project Officer

Robert M. Clark
Drinking Water Research Division
Municipal Environmental Research Laboratory
Cincinnati, Ohio 45268

MUNICIPAL ENVIRONMENTAL RESEARCH LABORATORY
OFFICE OF RESEARCH AND DEVELOPMENT
U.S. ENVIRONMENTAL PROTECTION AGENCY
CINCINNATI, OHIO 45268

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FOREWORD

The Environmental Protection Agency was created because the public and the federal government were increasingly concerned about the dangers of pollution on the health and welfare of the American people. Noxious air, foul water, and spoiled land are tragic testimonies to the deterioration of our natural environment. The complexity of that environment and the interplay among its components require a concentrated and integrated attack on the problem.

Research and development is that first step in problem solution, and involves defining the problem, measuring its impact, and searching for solutions. The Municipal Environmental Research Laboratory develops new and improved technology and systems: 1) to prevent, treat, and manage wastewater, solid and hazardous waste, and pollutant discharges from municipal and community sources; 2) to preserve and treat public drinking water supplies; and 3) to minimize the adverse economic, social, health, and aesthetic effects of pollution. This publication is a product of that research and is a most vital communications link between the researcher and the user community.

The Safe Drinking Water Act of 1974 establishes primary health-related standards and secondary aesthetics-related but nonenforceable guidelines for drinking water supplies. These standards will bring about a fundamental examination of the way water is handled before it is delivered to the consumer. Many of these changes will have an economic impact on the affected water utilities. This report describes a water supply financial reporting system that was developed to be compatible with a water supply cost analysis system. The financial reporting system, along with the cost analysis system, provides a management analysis and report system that has broad application to the water supply industry. This report, Volume I, describes the background, development, and application of the financial reporting system. Volume II contains the documentation of computer programs that create the system.

Francis T. Mayo
Director
Municipal Environmental Research Laboratory

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ABSTRACT

The United States Environmental Protection Agency (EPA), in an effort to provide the water supply industry with management tools, recently developed a water supply cost analysis system (CAS). The system was implemented and verified at the Kenton County, Kentucky, Water District No. 1 (KCWD) utility. When the CAS was implemented, it functioned with a manual financial reporting system; KCWD therefore operated a partially computerized financial accounting system. After several months, KCWD recognized the need for an automated accounting system within their utility, and requested assistance from the EPA for development and implementation of a computerized financial reporting system (FRS). Although the FRS is designed for a specific application to the KCWD utility, other water utilities could use the system with some programming alterations. This FRS gathers accounting data by account number, and then creates three reports for the utility: the trial balance, the statement of income and expenditures, and the balance sheet. The FRS development and operation, including programming, documentation, and operating instructions, are described in this two volume report. Volume I includes a description of the FRS; Volume II provides detailed information on the computer programming, including listings and flow charts.

This report is submitted by KCWD in fulfillment of Cooperative Agreement CR 806448-01, under the sponsorship of the U.S. EPA.

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ACKNOWLEDGMENTS

The staff of Kenton County, Kentucky, Water District No. 1 participated in the development and implementation of the Financial Reporting System described in this report. The cooperation and active support of Mr. Malvern Connett, Office Manager, Kenton County, Kentucky, Water District No. 1, and Mr. James Sparrow, CPA, Rankin, Rankin and Company, are gratefully acknowledged.

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SUMMARY AND CONCLUSIONS

SUMMARY

Kenton County Water District No.1 (KCWD), which provides water to most of Kenton County, Kentucky, and to some adjoining areas, has been developing new management tools in an effort to better control their cost. Their water system has rapidly expanded through acquisition of existing water systems and through population and industrial growth. To assist management in effectively handling the expansion, KCWD worked with the U.S. Environmental Protection Agency (EPA) in the development and operational verification of the Cost Analysis System (CAS). The CAS is a group of computer programs that use financial information along with some operational information (i.e., revenue-producing water) to identify expense to cost centers. The cost centers are designed so that expense can be accumulated as water flows through the physical components of the utility. The CAS proved advantageous to KCWD and demonstrated the value of computerized data processing.

The financial records and reports of the KCWD were produced manually. After the development of CAS, the KCWD operated with manually produced financial reports, while their management information was produced by a computer. To improve their financial reporting, KCWD applied to the EPA for a Cooperative Agreement (CA) to develop a computerized financial reporting system (FRS) that would be compatible with the CAS. The CA contained the following requirements:

1. Providing computer programs that produce a general ledger accounting system and financial reports.
2. Providing an FRS that will function in conjunction with and independently of the CAS.
3. Verifying the operation of the computer programs and the completeness of information of the FRS through a practical application.

The EPA approved the CA, and development of the FRS was started. The computer programming was accomplished by the use of American Standard COBOL operating in an IBM 370 environment. This combination of software and hardware was chosen because of widespread use, especially by municipalities.

The FRS produced the first financial report with KCWD data in early

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1980, and has since produced reports on a monthly basis. In addition to the monthly reports, two annual accounting closings have been made and year-end financial reports have been printed. These financial reports are based on detailed financial data and present a disclosure of the utility's financial operating condition on a monthly basis. Thus, each set of reports covers a period of time short enough to allow early detection and appropriate action for variations between planned and actual operational cost. Using the reports on a monthly basis, KCWD verified that the reports include all of the financial information needed for utility operation. Their CPAs examined the reports and acknowledged that the reports were adequate.

KCWD has used the FRS reports in several applications. One application was with the Kentucky Utility Regulatory Commission (URC) in seeking a rate increase. The FRS reports, along with the associated CAS reports, were used to establish the financial status of KCWD and provide justification of the request for an increase in their charges for water. The reports withstood the intense examination of the URC staff and the interveners, who opposed the rate increase. KCWD has continued to use these reports periodically to provide required financial information to URC.

Associated with the rate increase was a request for sale of bonds to finance necessary expansion of the KCWD system. To qualify for and receive favorable ratings on the bonds, the KCWD's financial records had to be in proper order. The financial record system was again examined carefully and again was considered adequate and accurate.

CONCLUSIONS

The FRS has satisfied KCWD's financial reporting requirements with information furnished on a monthly basis. It has met the basic requirements of the CA, which were identified earlier and is considered a proven system because it has:

1. Produced parallel reports with KCWD's manual system.
2. Produced over 24 sets of monthly reports.
3. Produced reports for two annual closings.
4. Provided the financial data to the Kentucky Utility Regulatory Commission for rate adjustments.
5. Been examined by and accepted by interviewers at a rate adjustment.
6. Provided the financial data for a major bond issue.
7. Been accepted by the CPA firm which audits KCWD records.

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The computer programs that produce the reports from the source data, and the information in the reports, have been verified as operational and complete at KCWD. The programs are designed specifically for KCWD, but include features that would allow them to be used by other water utilities with suitable alterations.

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Whenever the utility uses the National Association of Regulatory Commissioners (NARUC) recommended chart of accounts, and documents the source data as described in this report, the FRS programs can be applied with minimal adjustments. If the chart of accounts or other areas (i.e., source data documentation) are different, the programs can be modified and the system will still function. The extent of program changes will be directly related to the differences in the accounting systems.

The FRS computer programs that are functioning for KCWD are completely documented, including flow diagrams and program listings, in Volume II of this report.

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INTRODUCTION

BACKGROUND

The Safe Drinking Water Act of 1974 (PL-93-523)¹ necessitated a fundamental reexamination of the way in which drinking water is supplied to the American public. A primary feature of the Act is that the economics and cost of water supply and water delivery must be considered before regulations are promulgated. In 1974, a cost study of selected water utilities was undertaken, whereby data was collected from at least one class A water utility (revenue greater than \$500,000 per year) in each of the 10 Regions of EPA². The purpose of the study was to collect data in such a manner that the resulting information could be easily compared among utilities, thus providing an understanding of some of the fundamental factors that affect the cost of water supply and water utility management.

One conclusion resulting from the investigation was that although each of the selected utilities kept financial records, and in some cases extensive ones, the data among utilities varied significantly. Another conclusion was that many of the records were kept primarily for accounting purposes and had little relation to the short- and long-term operational needs of the utility manager. After carefully analyzing the data flow and the information transfers of a number of large and small utilities, the investigators developed a technique for data collection and analysis that would fulfill both managerial and accounting needs. The technique which was based on a matrix concept, was tested by means of a water supply simulation model developed by the Drinking Water Research Division of EPA in Cincinnati. The technique, having proved both effective and efficient in a hypothetical situation, was developed into the Cost Analysis System (CAS) and implemented at KCWD where it was further refined and modified based on the operational experience. Both the system and the KCWD experience are described in a two-volume report titled Development and Application of a Water Supply Cost Analysis System, Volume I and Volume II³.

The CAS implemented at KCWD was functional on a computer and provided timely cost accounting data. At the time of implementation, the KCWD had a manual financial reporting system, and their expanding service area was placing a heavy burden on maintaining records. The CAS made the advantages of computerization obvious, and therefore KCWD applied to the EPA for a cooperative agreement to assist them in developing a Financial Reporting System (FRS). This FRS was to provide KCWD's routine financial

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reports, and was to be designed to use the same source data as the CAS. The EPA responded favorably to the KCWD request for the cooperative agreement and provided financial and technical assistance in the development of the FRS. Figure 1 graphically describes the combination of the CAS and the manual financial reporting system used by KCWD prior to the development of the FRS.

FINANCIAL REPORTING SYSTEM OBJECTIVES

Based on the needs of KCWD and of EPA, the following objectives were established for the FRS:

1. Development of a standardized, computerized FRS that would provide a general ledger accounting system and financial accounting reports. The FRS is to be compatible and to interface with the existing CAS, and together are to form a complete computerized financial accounting system with broad application to the water supply industry.
2. Development of the CAS and the FRS as modular systems so that utilities could use either system independently or together as a total financial accounting system.
3. Verification of the satisfactory operation of the FRS as an independent subsystem, and as a part of the total financial accounting system through practical applications at KCWD.

KENTON COUNTY WATER DISTRICT NO.1 UTILITY DESCRIPTION

KCWD, the first water district established in the State of Kentucky, originally developed its water supply system by purchasing the Dixie Highway Water Company system in 1926. Before 1926, treated water was being purchased from the City of Covington, Kentucky, and delivered by the KCWD to its customers.

In 1954, the KCWD built a new water intake on the left bank of the Licking River, approximately 4-3/4 miles upstream from the Ohio River, and a treatment plant located at Grant and Howard Avenues in Taylor Mill, Kentucky. Presently, the treatment plant contains eight mixed media filters and has a rated capacity of 12.0 MGD. After being treated, the raw water flows into a clearwell with a capacity of 930.0 MG. The treated water is pumped by two primary pumping stations, one at the treatment plant and one at Dudley Pike, into the distribution system. The distribution system, containing approximately 160 miles of pipe, consists of three pressure levels. The first pressure level, a 5.0 MGD storage tank, is filled directly from the treatment facility or by the pumping capacity at the treatment plant. The second pressure level, which provides water to the largest service area, is supplied by gravity from three elevated storage tanks or by the capacity of the main booster pump station at

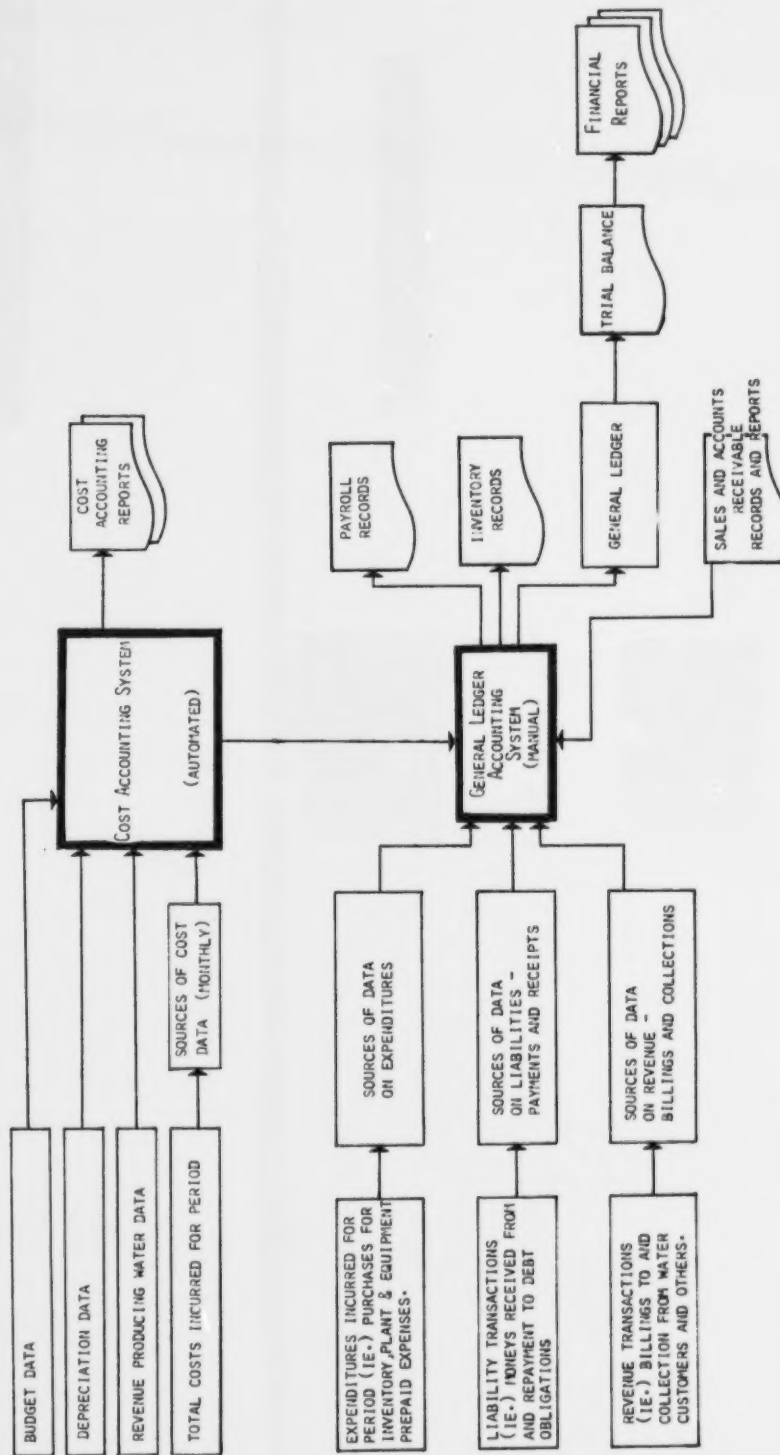


Figure 1. Financial Accounting System for water supply utilities.

Dudley Pike. The third pressure level is fed by gravity from two elevated storage tanks in the Northern Kentucky Industrial Foundation Park and the City of Florence or by the two booster stations on Turkey Foot Road at Lafayette Avenue.

In July 1977, the KCWD acquired operating control, and about 1-1/2 years later, merged the City of Covington, Kentucky, Water Utility into the KCWD system. In addition to the Covington utility service area, the KCWD provides water to about 15,600 customers of the northwestern portion of Kenton County, Kentucky, in a 40-square-mile retail service area. Treated water is supplied to 12 townships, to an industrial park, and to unincorporated areas of Kenton County lying within the service area. In addition, water is supplied to the City of Florence and to the International Airport. Figure 2 is a map of the KCWD service area, excluding Covington, showing the locations and relative sizes of the three original pressure zones.

EXISTING (MANUAL) FINANCIAL REPORTING SYSTEM

The KCWD accounting system, as with most governmental accounting systems, is operated on a fund basis. "Fund basis" is defined as a group of accounts, including assets, liabilities, and balance accounts, which are isolated in order to comply with a specific objective or to specify a special purpose of the activities associated with the accounts. The funds established by the KCWD are general, operating and maintenance, bond, depreciation, and plant fund.

The general fund consists of the accounts that are general in nature and not applicable to the other specific fund. At KCWD, revenues are initially recorded within the general fund, and then are transferred to other individual funds as necessary to provide for the expenses or appropriations required of the other specific funds. The operating and maintenance fund consists of only those accounts that reflect the operating and maintenance activities of the utility. The bond, depreciation, and plant funds, like the operating and maintenance fund, consist of groups of accounts that identify activities associated with the funds. Other funds may be established as the need arises to isolate certain accounting activity.

The KCWD, chart of accounts, like those of many other water supply utilities, was originally developed by the National Association of Regulatory Utility Commissioners (NARUC)⁴. According to the NARUC, the KCWD is a class A water utility (having annual operating revenues of \$500,000 or more), and therefore uses the chart of accounts for class A utilities. For further description or information concerning the NARUC/KCWD chart of accounts, it is recommended that the Handbook of the Uniform System of Accounts, published by the NARUC be consulted.

Routinely each month as transactions occur, various source documents

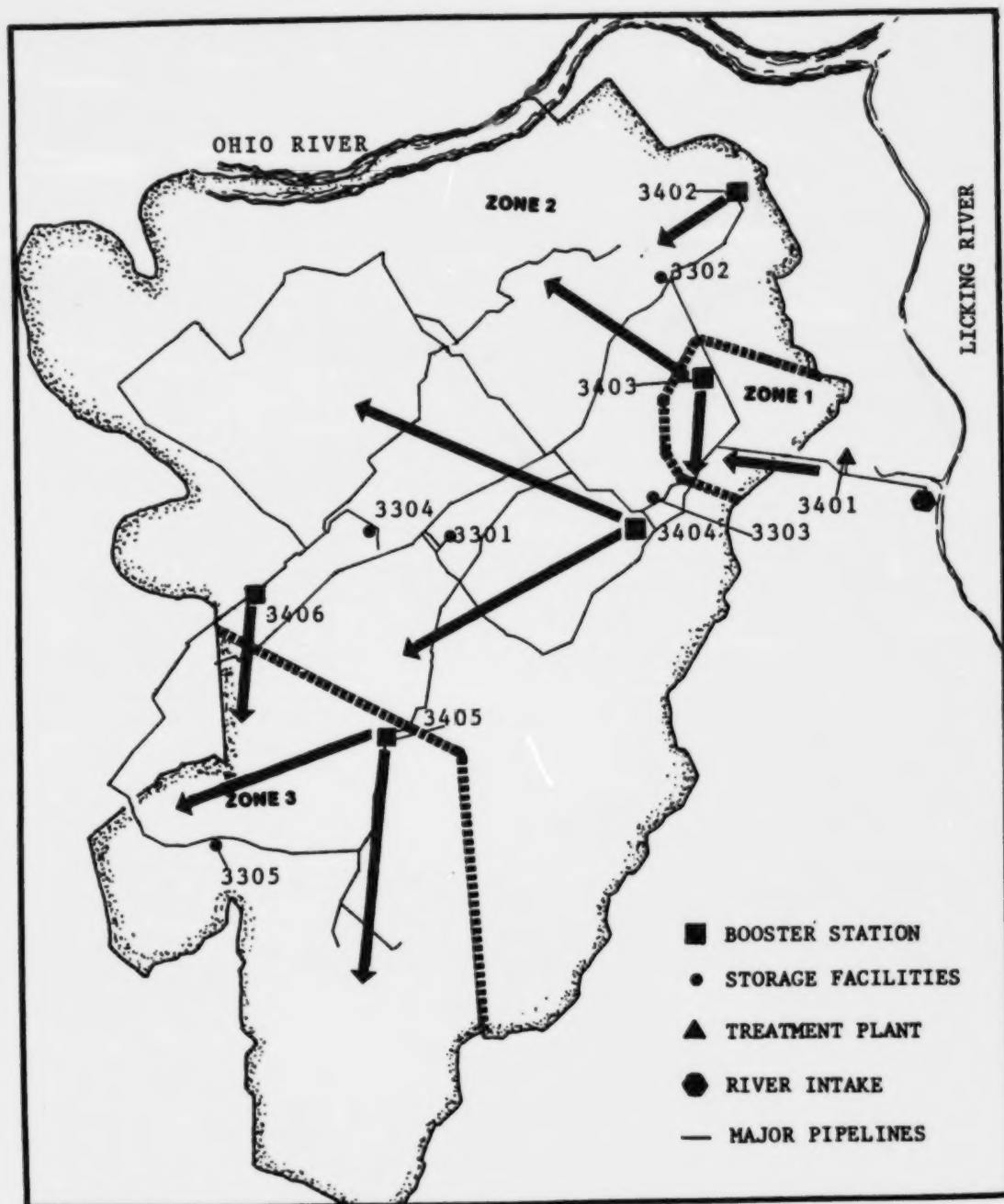


Figure 2. Kenton County Water District No.1 service area.

are prepared to record information concerning the transaction. On these source documents are coded the account numbers, cost center numbers, amounts, and any other descriptive information that is important in identifying the transactions. Since the source document is the authority from which the accounting entry is originated, the recording of complete accounting information is imperative.

Monthly, from the originating documents, accounting entries are summed by account number and then are recorded into the general and subsidiary ledgers within each applicable fund. After all entries have been posted to the general ledger, a total by account is calculated and the accounts in each fund are balanced. At this point, a preliminary trial balance may be prepared; however, no external financial accounting report is prepared until the end of the fiscal year. Annually, therefore, after year-end adjustments and closing entries have been recorded in the general ledger, the accounting books are closed and a trial balance, statement of revenue and expenditures, and balance sheet are manually prepared.

FINANCIAL REPORTING SYSTEM DEVELOPMENT

ACCOUNTING CONSIDERATIONS

The function of accounting is to provide quantitative financial information useful for economic decision making. The end result of an accounting operation is the production of financial statements or reports. The financial reports may vary because of the way in which financial accounting information is listed, classified, recorded, summarized, or reported to the person who will make use of the information. However, they normally are produced in a standard, generally accepted format. The financial reports provide information on current and past events, and thus can help management evaluate prior decisions and provide a starting point for producing future conditions or changes. In addition to being useful for assessment of current and future financial needs, the information may be important for purposes of policy setting. In essence, financial reports are normally designed to provide a manager with some of the information required for many of his decisions, operational as well as financial, concerning evaluation of the use and stewardship of resources. Adequate financial reporting is important because the utility has an economic obligation and responsibility to manage its resources efficiently while providing the services required by its customers.

All water utilities are concerned with two basic types of financial reports: external and internal. The external financial reports are necessary to meet the requirements of various interested parties within the management or regulatory areas of the utility. Some users of the external financial reports, such as the State Public Service Commissions, are interested because they are charged with the responsibility of protecting customers who have a direct interest. In the case of KCWD, the Kentucky Public Service Commission uses the utilities' external financial reports to determine the reasonableness of the rate of return from their sale of water. An example of an internal report is a trial balance report; examples of external reports are the balance sheet and the statement of revenue and expenditures.

As the KCWD manual financial reporting system was being adapted to the computerized system, careful attention was given to the accounting practices, so that they would conform to the guidelines set forth by Governmental Accounting, Auditing, and Financial Reporting⁵, AICPA Auditing and EPD⁶, and American Water Works Association Water Utility Accounting, Second Edition⁷.

INTERNAL REPORTS

To produce internal financial reports, transactions are entered into the computer system from various source documents, creating a general ledger data file. Figure 3 is a simplified flow schematic of the FRS. The same six types of source documents on which financial data was recorded for the KCWD manual accounting system are also used in the FRS. These source documents are payroll time card (Figure 4), miscellaneous transaction form (Figure 5), cashier's daily report (Figure 6), service contract form (Figure 7), requisition from stock form (Figure 8), and journal authorization form (Figure 9). From the source documents, data is keyed into the computer.

To verify that source document data is entered into the computer correctly, edit reports for each type of source document are produced. The payroll edit report (Figure 10) lists the date of the report, the employee social security number, the date of the pay period, the account number to which his labor was charged, the cost center or location in which the work was performed, the total cost by account, and balancing features of the edit routine, including comments for error conditions. By examining the data on Figure 4 and comparing it with the first portion of the data on Figure 10, it is evident that the data from the weekly time card has been transferred to the payroll edit report. Specifically, employee social security number 406 07 0655, shown in Figure 4, is the first employee listed in Figure 10. In this case, the employee was on vacation (account 926-00) for one day (8 hours), and the remaining four days (32 hours) worked in an area and for the purpose that is designated by account 903-02. This data is entered into the computer system from the weekly time card, using the account number, the hours, the cost and the cost center, if the individual works at a cost center that requires listing. The adjustments to the pay, such as social security (F.I.C.A.), withholding tax, etc., are entered next. These items are entered as cost only. By the location of the values entered, the computer program automatically recognizes their purpose and assigns the proper account numbers. The program also automatically handles special conditions such as F.I.C.A., calculating which part is withheld from the employee's pay and which part is paid by the employer, and calculating the total debit and total credit. For this employee, the total debit is \$266.63, which is a gross pay of \$250 plus \$16.63 of F.I.C.A. paid by KCWD. The computer program makes several mathematical checks and account number checks and will reject improper data, but cannot identify errors that fall within a normal range.

Each of the following edit reports is produced by computer programs in a similar process from the source data. By matching the edit reports with the source documents, the flow of data can be examined. For details, refer to the computer program listings that describe the

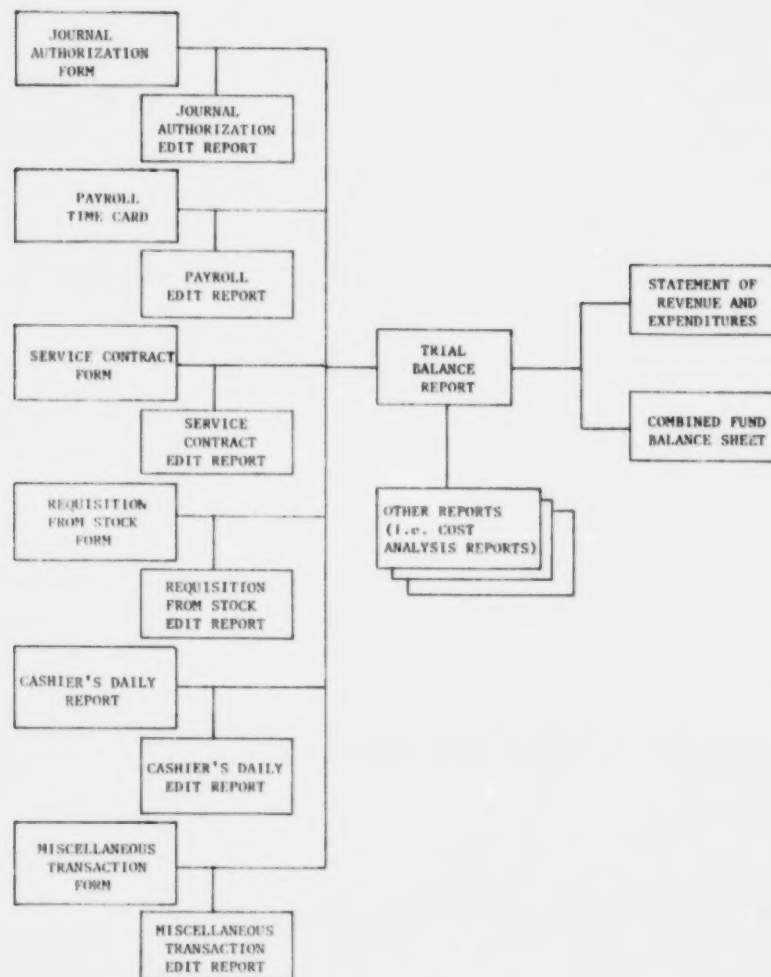


Figure 3. Simplified flow schematic.

Form 17, Rev. 2/79

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ENTRY NO.	DESCRIPTION	GENERAL LEDGER ACCT NO.	COST CENTER NO.	AMOUNT TO BE DEBITED OR (CREDITED)	TOTAL DEBIT AND (CREDIT) EACH ENTRY
1	RETURNED CHECK -- AA "	131-10 142-15		(55.66) 45.66	
2	RETURNED CHECK "	131-10 142-15		(11.39) 11.39	
3	RETURNED CHECK "	131-10 142-15		(6.00) 6.00	
4	MD - CD. "	131-10 142-15		6.00 (6.00)	
5	MD - CD. "	131-10 142-15		45.66 (45.66)	
6	MD - CD. "	131-10 142-15		11.39 (11.39)	
7	RETURNED CHECK "	131-10 142-15		(19.36) 19.36	
8	RETURNED CHECK "	131-10 142-15		(23.98) 23.98	
9	RETURNED CHECK "	131-10 142-15		(38.70) 38.70	

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CASHIERS' DAILY REPORT

Date XX/XX/XX No. XXX

176.58

176-SA

Total

Other receipts

City of Park Hills	Acct	143-10				136.97
M. Cash	"	471-30				2.00
PHILLIPS, T. T.	"	474-30	125.40	232-15	6.27	131.67
LAUFITZ CONST CO.	"	474-30	81.76	232-15	4.09	85.85

Total

356.49

Service contracts -

NAME		NO.	AMT.	INDEP.
KOCH, ROBERT E.		10511		

Total

533.07

Total to account for:

Cash	51.27
Checks	481.80
Total Deposit	533.07

Meter Guarantee _____

Name and No. _____

Total Deposits

Form #1, Rev. 1978

Figure 6. Cashier's daily report.

XXXXX

Meter No. 81169503

Date Installed XX/XX/XX

Quantity	Size			Unit Cost	Total
	01	Meter	6062	24 44	24 44
1	18"	Meter Vault	7018	8 67	8 67
1	18"	Meter Top	9018	21 43	21 43
		Corporation			
		Copper Setter			
1	5/8"	Yoke Complete	5062	10 31	10 31
15'	3/4"	Copper Pipe	3075	86	12 90
Total					77 75

Hrs.	Labor	Cost	Total Material		
1	ROB W.	12 63	State Tax		
1	RON C.	11 46	Labor		
1	ANDY B.	10 66	Hrs. 1 Tractor	10 00	10 00
1	PHIL P.	10 51	Compressor		
			1 Service Truck	4 00	4 00
			Dump Truck		
			P.U. TRUCK	2 50	2 50
Total		45 26	Sub-Total	139 51	
			Overhead	13 95	
			Total	153 46	

Date _____ Completed by _____

Figure 7. Service contract form.

Nº 8275

KENTON COUNTY WATER DISTRICT No. 1
REQUISITION FROM STOCK

CHARGE TO		ACCOUNT	1040-40	DATE	XX/XX/XX	
QUANTITY	STOCK NO.		DESCRIPTION	UNIT PRICE		TOTAL
1	6062R		METER	24	44	24 44
1	35062		COUPLING	2	92	2 92
FILLED BY XXXXXXXXXXXXXXXXXXXX				RECEIVED BY XXXXXXXXXXXXXXXXXXXX		TOTAL
						27 36

Figure 8. Requisition from stock form.

KENTON COUNTY WATER DISTRICT NO. 1
JOURNAL AUTHORIZATION

№ 10854

DATE XX/XX/XX

VENDOR PITNEY BOWES

FUND OPERATING & MAINTENANCE

AMOUNT \$ 61.00

	932-40	\$ 30.50
(DEBIT) C	932-40	30.50
(CREDIT)	131-40	61.00

Figure 9. Journal authorization form.

PAYROLL REPORT FOR KENTON COUNTY KENTUCKY								PAGE 1	
DATE ENDING: APRIL 30, 1961	EMPLOYEE NUMBER	DATE	ACCOUNT NUMBER	COST CENTER	TOTAL COST	TOTAL CREDITS	TOTAL DEBITS	COMMENTS	
406-70-0655	040581	040581	903-02	C	200.00				
			926-00		30.00				
			241-42		-40.27				
			241-40		-16.63				
			241-41		-16.63				
			926-21		16.63				
			241-43		-7.60				
			241-44		-10.00				
			241-46		-1.25				
			241-49						
402-64-6622	040581	040581	676-02	C	-174.25	-266.63	266.63		
			676-02	I	155.20				
			903-02	I	126.16				
			663-02	I	31.04				
			663-02	I	11.64				
			663-02	I	23.28				
			663-02	C	23.28				
			664-02	C	11.04				
			664-02	C	23.28				
			241-42		-72.54				
403-08-3454	040581	040581	241-40		-26.83				
			241-41		-26.83				
			926-21		26.83				
			241-43		-15.26				
			241-44		-16.14				
			241-46		-2.02				
			241-49						
			131-40		-270.73	-430.35	430.35		
			670-01	I	67.00				
			241-42		-3.07				
400-42-0866	040581	040581	241-40		-4.46				
			241-41		-4.46				
			926-21		4.46				
			241-43		-6.64				
			241-44						
			241-46		-3.34				
			241-49		-58.49	-71.46	71.46		
			131-40						
			663-02	C	181.00				
			664-02	C	181.00				
400-42-0866	040581	040581	903-02	C	13.58				
			903-02	C	13.58				
			241-42		-98.43				

Figure 10. Payroll edit report.

action of each specific data element, which are included in Volume II of this report.

Figure 11 is an example of the miscellaneous transactions edit report. Listed are the entry number, the account number, the cost center, the amount, and the edit control, with credit total, debit total, and comment columns. The cashier's daily report is shown in Figure 12. The report consists of the date, the cashier daily report form number, the account number, the amount, and the credit, debit, and comment edit. The service contract edit report (Figure 13) provides the contract number, the date of the contract, the account number, the stock number, the quantity, the total cost, and credit and debit totals, and comments.

Requisition from stock edit (Figure 14) provides a requisition number, the account number, the cost center, the quantity taken from stock, the stock item number, the amount and a total by requisition number, and an edit comment column. The journal/payment authorization edit report (Figure 15) lists the journal authorization number, account number, cost center number, amount, total, and comments provided for error conditions.

After all the source documents are recorded and entered into the computer system, edit listings and a trial balance sheet are produced. The trial balance report (Figure 16) is printed in account number order within each fund. The report provides the following information: account description, along with the account number; the beginning amount within each account as of the beginning of the accounting period; the current amount charged to the account during the current period; and the ending amount, which is a total of the beginning balance and the current amount. The beginning amount of the trial balance is the ending amount of the previous trial balance, and is produced from retained information. The current amount is the summation of all expenses from the source data (edit reports) for each account number. Therefore, the audit trail between the trial balance and the edit reports is the summation of individual accounts. Assuming that the beginning amount on the trial balance is accurate, an out-of-balance condition on a new trial balance would most likely be caused by an error in the source data. Thus, the trial balance report and the edit reports are used to detect errors before they are processed by the accounting system. The trial balance report may be run as many times as necessary to produce valid data. Once the data is determined to be valid and each account is in balance by fund, a final trial balance for the current period is produced.

EXTERNAL REPORTS

After the final trial balance is completed, the combined fund balance sheet and the statement of revenue and expenditures reports are produced. These reports are generated from information contained in the trial balance, plus data retained from the previous processing. As in the trial balance, these reports are developed by combining data in a predetermined way to produce the desired specialized reports.

DATE: APRIL 30, 1961				MISCELLANEOUS IMPROVEMENTS REPORT				PAGE 1	
ENTRY NUMBER				RENTON COUNTY KENTUCKY					
ACCOUNT NUMBER				COST CENTER					
				AMOUNT				CREDIT TOTAL	
								DEBIT TOTAL	
								COMMENT	
1	131-10	142-15		45.06					
2	131-10	142-15		11.59					
3	131-10	142-15		8.00					
4	131-10	142-15		8.00					
5	131-10	142-15		45.06					
6	131-10	142-15		11.59					
7	131-10	142-15		14.36					
8	131-10	142-15		25.98					
9	131-10	142-15		35.70					
10	131-10	142-15		19.36					
11	131-10	142-15		7.20					
12	131-10	142-15		21.12					
13	131-10	142-15		22.44					
14	131-10	142-15		24.12					
15	131-10	142-15		23.88					
16	131-10	142-15		6.00					

Figure 11. Miscellaneous edit report.

DATE ENDING: APRIL 30, 1981				CASHIERS DAILY REPORT FOR KENTON COUNTY KENTUCKY		PAGE 1
DATE	FORM NUMBER	ACCOUNT NUMBER	AMOUNT	TOTAL CREDITS	TOTAL DEBITS	COMMENTS
040161	67-1	142-10 131-10	-8667.29 8667.29	-8667.29	8667.29	
040161	68	142-10 22-15 431-10 474-30 271-20 131-10	-676.46 -6.27 -27.67 -125.40 -3375.00 4210.80	-4210.80	4210.80	
040161	68-1	142-10 131-10	-6815.95 6815.95	-6815.95	6815.95	
040261	69	142-10 1020-15 22-15 474-30 271-20 131-10	-373.78 -281.25 -14.63 -292.60 -225.00 1187.26	-1187.26	1187.26	
040261	69-1	142-10 131-10	-3993.65 3993.65	-3993.65	3993.65	
040361	70	142-10 131-10 22-15 252-15 471-30 474-30 474-30 131-10	-176.50 -136.97 -6.27 -4.09 -2.00 -125.40 -81.76 533.07	-533.07	533.07	

Figure 12. Cashier's daily report.

SERVICE CONTRACT FOR KENTON COUNTY KENTUCKY										PAGE
DATE ENDING: APRIL 30, 1981										1
CONTRACT NUMBER	DATE	ACCOUNT NUMBER	STOCK NUMBER	QUANTITY	TOTAL COST	TOTAL CREDITS	TOTAL DEBITS	COMMENTS		
10514	042881	346-00	6062	1	24.44					
		154-40	6062	1	-24.44					
		345-00	7018	1	8.67					
		154-40	7018	1	-8.67					
		345-00	9018	1	21.43					
		154-40	9018	1	-21.43					
		345-00	5062	1	10.31					
		154-40	5062	1	-10.31					
		345-00	3075	15	12.90					
		154-40	3075	15	-12.90					
		345-00			10.00					
		680-30			-10.00					
		345-00				4.00				
		680-30				-4.00				
		345-00				2.50				
680-30				-2.50						
10517	042881	346-00	6062	1	24.44					
		154-40	6062	1	-24.44					
		345-00	7018	1	8.67					
		154-40	7018	1	-8.67					
		345-00	9018	1	21.43					
		154-40	9018	1	-21.43					
		345-00	5062	1	10.31					
		154-40	5062	1	-10.31					
		345-00	3075	15	12.90					
		154-40	3075	15	-12.90					
		345-00			10.00					
		680-30			-10.00					
		345-00				4.00				
		680-30				-4.00				
		345-00				2.50				
					-108.20		108.20			

Figure 13. Service contract edit report.

REQUISITION FROM STOCK REPORT
FOR
KENTON COUNTY KENTUCKY

DATE ENDING: APRIL 30, 1961

REQUISITION #	ACCOUNT #	COST CENTER	QUANTITY	STOCK NO	AMOUNT	TOTAL	COMMENTS
8275	1040-40		1.0	6062	24.44	27.36	
	1040-40		1.0	35062	2.92		
8276	1040-40		1.0	6062	24.44	27.36	
	1040-40		1.0	35062	2.92		
8277	1040-40		1.0	6062	24.44	27.36	
	1040-40		1.0	35062	2.92		
8278	1040-40		1.0	6062	24.44	27.36	
	1040-40		1.0	35062	2.92		
8663	1040-40		1.0	35062	2.92	26.01	
8627	1040-40		3.0	7018	26.01		
	675-50	35	6.0	1075	7.85		
	675-50	35	6.0	7018	52.02		
	675-50	35	6.0	5062	155.52		
	675-50	35	6.0	9018	153.06		
	675-50	35	6.0	6062	24.44		
8718	1040-40		1.0	35062	2.92	27.36	
	1040-40		1.0	6062	24.44		
8719	1040-40		1.0	35062	2.92	27.36	
	1040-40		1.0	6062	24.44		
8720	1040-40		1.0	35062	2.92	27.36	
	1040-40		1.0	6062	24.44		
8721	1040-40		1.0	35062	2.92	27.36	
	1040-40		1.0	6062	24.44		
8722	1040-40		1.0	35062	2.92	27.36	
	1040-40		1.0	6062	24.44		
8723	1040-40		1.0	35062	2.92	27.36	
8724	1040-40		1.0	35062	2.92	27.36	
	1040-40		1.0	6062	24.44		
8817	1040-40		1.0	35062	2.92	27.36	
	1040-40		1.0	6062	24.44		
8818	1040-40		1.0	35062	2.92	27.36	
	1040-40		1.0	6062	24.44		
8819	1040-40		1.0	35062	2.92	27.36	
	1040-40		1.0	6062	24.44		
8820	1040-40		1.0	35062	2.92	27.36	
	1040-40		1.0	6062	24.44		
8821	1040-40		1.0	35062	2.92	27.36	
	1040-40		1.0	6062	24.44		
8822	1040-40		1.0	35062	2.92	27.36	
	1040-40		1.0	6062	24.44		
8893	1040-40		1.0	35062	2.92	27.36	
	1040-40		1.0	6062	24.44		
8894	1040-40		1.0	35062	2.92	27.36	
	1040-40		1.0	6062	24.44		
8895	1040-40		1.0	35062	2.92	27.36	
	1040-40		1.0	6062	24.44		
8896	1040-40		1.0	35062	2.92	27.36	
	1040-40		1.0	6062	24.44		
8897	1040-40		1.0	35062	2.92	27.36	
	1040-40		1.0	6062	24.44		

Figure 14. Requisition from stock edit report.

JOURNAL AUTHORIZATION REPORT
KENTON COUNTY KENTUCKY

DATE ENDING: APRIL 30, 1981

JOURNAL AUTH. #	ACCOUNT #	COST CENTER	AMOUNT	TOTAL	COMMENTS
10816	666-00 C		290.00		
	131-40		-290.00		
10817	131-40		-5084.75		
	925-00		5084.75		
10825	232-45		2229.18		
	131-40		-2229.18		
10852	921-03		37.50		
	921-03 C		37.50		
	131-40		-75.00		
10853	903-30		24.75		
	903-30 C		24.75		
	131-40		-49.50		
10854	932-40 C		30.50		
	131-40		-61.00		
	922-40		30.50		
10855	921-29		28.76		
	921-29 C		28.75		
	131-40		-57.51		
10873	675-50 C	35	672.45		
	677-50 C	35	89.06		
	131-40		-761.51		
10876	419-60		-281.25		
	1010-60		281.25		
10877	1020-10		10.45		
	642-13		10.45		
	142-10		-10.45		
10878	1010-40		-10.45		
	142-10		8.36		
	1010-40		8.36		
	1020-10		-8.36		
	131-40		-8.36		
10879	142-10		8.80		
	1010-40		8.80		
	1020-10		-8.80		
10880	131-40		-8.80		
	131-40		-15.00		
	142-10		15.00		
	1010-40		15.00		
10881	1020-10		-15.00		
	1010-60		725.00		
	615-60		-725.00		
10884	642-17 C	72	17.00		
	642-20 C		8.00		
	660-50		14.00		
	660-50 C		4.36		
	903-15		1.04		
	903-30		3.19		
	911-20		20.26		

Figure 15. Journal/payment authorization edit report.

PLANT FUND	ACCOUNT NO.	ACCOUNT DESCRIPTION	BEGINNING	CURRENT	ENDING
	396-R3 C	POWER OPERATED EQUIP GENERAL PLANT			
	397-05	COMMUNICATION EQUIP WAREHOUSE			
	397-70	COMMUNICATION EQUIP TREATMENT PLANT			
	397-81	COMMUNICATION EQUIP OFFICE BUILDING	16065.00		16065.00
	397-R3 C	COMMUNICATION EQUIP GENERAL PLANT			
	398-81	MISCELLANEOUS EQUIP GENERAL PLANT	539.00	50.00	589.00
	398-83 C	MISCELLANEOUS EQUIP GENERAL PLANT			
	399-81	OTHER TANGIBLE PROPERTY			
	403-50	DEPRECIATION EXPENSE		13332.00	13332.00
	403-50 C	DEPRECIATION EXPENSE			
	405-50	AMORTIZATION EXPENSE		3464.00	3464.00
	419-50	INTEREST EARNED ON INVESTMENTS		-45229.61	-45229.61
	427-50	INTEREST ON MORTGAGE LOAN			
	9-1212	NEW CONSTRUCTION	2036.07	671.87	2705.94
TOTAL PLANT FUND					
TOTAL TRIAL BALANCE					

Figure 16. Trial balance report.

Figure 17 is an example of the water utility balance sheet report. The purpose of the balance sheet is to reflect clearly the financial position of the utility by revealing on the report the assets and liabilities. The assets and liabilities are subclassified into general terms of current assets, current liabilities, long-term assets, long-term liabilities, etc. The balances are termed "fund balance" because they represent the balance of assets to liabilities within designated accounts set aside for specific funds.

An example of the information in Figure 17 can be seen by examining the first line that shows the cash in bank for the five funds used by KCWD. As of the end of April, the general fund has \$547.89, the operating and maintenance fund has \$15,448.43, the water revenue fund has no money, the depreciation fund has \$9,939.88, and the plant fund has \$43.05. The total change in the cash in bank status for the current period (April) shows -\$6,138.48. The minus sign means that for the month of April there was a decrease in cash available at the bank by \$6,138.48. The next value, which is the total year to date (from January 1 through April 30) shows \$25,979.25 increase in available cash for the first four months of the year. This amount (\$25,979.25) equals the March report year to date value for cash in the bank, adjusted by April's -\$6,138.48 current period value. The \$25,979.25 also equals the sum of money in each of the five funds. The same principle is followed throughout the combined fund balance sheet.

In addition to determining the financial position of the utility, management can determine the amount of working capital available to meet the financial requirements of the ordinary accounting cycle (usually monthly), by reviewing the excess of current assets (cash or assets that may be realized as cash, such as accounts receivable), over the current liabilities (those obligations normally incurred within an ordinary period, requiring the use of the current assets, such as accounts payable).

Since the combined fund balance sheet is used as a presentation of the utility's financial position, it primarily is a summary of balances collected from books of accounts over an accounting period of time, and can best be described as a summary report of sources and uses of financial resources of the organization.

The KCWD combined fund balance sheet is produced monthly, at the end of the accounting period. Across the top of the report are printed major headings consisting of the following: total current period, total year to date. The year to date total is printed by fund, and includes general revenue fund, operating maintenance fund, water revenue bond fund, depreciation fund, and plant fund. On the left-hand side of the report are printed the accounts, which are listed in account-type order, beginning with assets including the following: current assets, other assets, fixed assets, deferred debts, total assets. The accounts are then listed by liabilities, including current liabilities, customer deposits, deferred credits, long term debts, contribution in aid of construction, and total

KEATON COUNTY KENTUCKY
 WATER DISTRICT #1
 COMBINED FUND BALANCE SHEET
 YEAR TO DATE ENDING
 APRIL 30, 1981

PAGE: 1

	TOTAL CURRENT PERIOD	TOTAL YEAR TO DATE	GENERAL REVENUE FUND	OPERATION AND MAINTENANCE FUND	WATER REVENUE BOND FUND	DEPRECIATION FUND	PLANT FUND
ASSETS							
CURRENT ASSETS							
CASH IN BANK	-8138.48	25979.25	547.89	15488.43		9939.68	43.35
CASH IN BANK COVINGTON	-367.50	12396.14			12396.14		
CASH IN BANK DIST. EXPANSION ACT							
CASH ON HAND		175.00		175.00			
TIME DEPOSITS	-43740.43	728814.23	24000.00		1232578.08	926000.00	5469926.15
TIME DEPOSITS COVINGTON	-28882.75						
INVESTMENT REVERSAL	1100.00	1100.00		1100.00			
INVESTMENTS DIST. EXPANSION ACCOUNT		4000.00	4000.00				
ACCOUNTS RECEIVABLE OTHER - COVINGTON							
ACCURED INTEREST RECEIVABLE							
ACCURED INTEREST RECEIVABLE - COV	5421.10						
ACCOUNTS RECEIVABLE CUSTOMERS	4030.10	309165.46	309165.46				
ACCOUNTS RECEIVABLE RETURNED CHECKS	189.15	317.45	317.45				

Figure 17. Combined fund balance sheet.

KENTON COUNTY KENTUCKY
WATER DISTRICT #1
COMBINED FUND BALANCE SHEET
YEAR TO DATE ENDING
APRIL 30, 1981

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	TOTAL CURRENT PERIOD	TOTAL YEAR TO DATE	GENERAL REVENUE FUND	OPERATION AND MAINTENANCE FUND	WATER REVENUE BOND FUND	DEPRECIATION FUND	PLANT FUND
ACCOUNTS RECEIVABLE OTHER	93.61	12875.07	12875.07				
ASSISSEMENTS RECEIVABLE		7019.16	7019.16				
INVESTMENTS 1981 OPER SVC INT	3457.45	214726.75		70144.75	70582.00		
INVESTMENTS PSCHOD FUND		1075900.00			1075900.00		
GENERAL EXPENSES	-1392.00	603.69		603.69			
DUE FROM GENERAL FUND							
DUE FROM DEM FUND		-120995.08	-120995.08				
TOTAL CURRENT ASSETS	\$ -504939.85	\$ 1025761.01	\$ 498933.95	\$ 105372.06	\$ 3057456.22	\$ 55939.84	\$ 526979.20
OTHER ASSETS							
CUST. GUARANTEE ACCT CASH IN BANK	909.60	5770.17	5770.17				
CUST. GUARANTEE ACCT TIME DEPOSITS		105000.00	105000.00				
TOTAL OTHER ASSETS	\$ 909.60	\$ 110770.17	\$ 110770.17	\$	\$	\$	\$
FIRE ASSETS							
UTILITY PLANT IN SERVICE	10937.03	21350761.08					21350761.08

Figure 17. (Continued)

KENTON COUNTY KENTUCKY
WATER DISTRICT #1
COMBINED FUND BALANCE SHEET
YEAR TO DATE ENDING
APRIL 30, 1981

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	TOTAL CURRENT PERIOD	TOTAL YEAR TO DATE	GENERAL REVENUE FUND	OPERATION AND MAINTENANCE FUND	WATER REVENUE BOND FUND	DEPRECIATION FUND	PLANT FUND
ACCUM PROVISIONS FOR DEPRECIATION	-13332.00	-343297.91					-343297.91
CONSTRUCTION IN PROGRESS	745571.60	2080335.98					2080335.98
CONSTRUCTION IN PROGRESS - COVINGTON							
NONUTILITY PROPERTY		37500.00					37500.00
NONUTILITY PROPERTY COVINGTON							
ACCUM DEPRECIATION NONUTIL PROPERTY		-24000.00					-24000.00
TOTAL FIXED ASSETS	\$ 628277.20	\$ 2001159.15	\$	\$	\$	\$	\$ 2001159.15
DEFERRED DEBITS							
MISC DEFERRED DEBITS	-4369.66	59439.25		515.25			59244.20
COST OF ISSUANCE DISC. & ACCN INT.		300151.03					300151.03
TOTAL DEFERRED DEBITS	\$ -4369.66	\$ 350590.28	\$	\$ 515.25	\$	\$	\$ 35075.23
TOTAL ASSETS	\$ 29877.50	\$ 3075040.91	\$ 599706.14	\$ 105087.31	\$ 3057456.22	\$ 53599.88	\$ 2564065.39

Figure 17. (Continued)

KENTON COUNTY KENTUCKY
WATER DISTRICT #1
COMBINED FUND BALANCE SHEET
YEAR TO DATE ENDING
APRIL 30, 1981

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	TOTAL CURRENT PERIOD	TOTAL YEAR TO DATE	GENERAL REVENUE FUND	OPERATION AND MAINTENANCE FUND	WATER REVENUE BOND FUND	DEPRECIATION FUND	PLANT FUND
LIABILITIES							
CURRENT LIABILITIES							
COUPONS OUTSTANDING							
COUPONS OUTSTANDING COVINGTON				-168238.92			
ACCOUNTS PAYABLE VENDORS	-2703.26	-168238.92					
ACCOUNTS PAYABLE OTHER							
SALES TAX PAYABLE	-1613.53	-2845.02	-2845.02				
BUDNE COUNTY TAX PAYABLE	271.26	-610.40	-610.40				
ACCOUNTS PAYABLE OTHER - COVINGTON							
ACCURED PAYROLL							
ACCURED PAYROLL TAXES	1096.92	-8825.19		-8825.19			
ACCURED INTEREST PAYABLE		-268.70					-268.70
NOTES PAYABLE							
LEASES PAYABLE	3715.30	-50751.22		-50751.22			
DUE TO GENERAL FUND		120995.08					
DUE TO DEPRECIATION FUND							

Figure 17. (Continued)

KENTON COUNTY KENTUCKY
 WATER DISTRICT #1
 COMBINED FUND BALANCE SHEET
 YEAR TO DATE ENDING
 APRIL 30, 1981

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	TOTAL CURRENT PERIOD	TOTAL YEAR TO DATE	GENERAL REVENUE FUND	OPERATION AND MAINTENANCE FUND	WATER REVENUE BOND FUND	DEPRECIATION FUND	PLANT FUND
DUE TO COVINGTON DEPRECIATION FUND							
TOTAL CUR LIABILITIES	\$ 726.71	\$ -90542.38	\$ -3455.43	\$ -86818.25	\$	\$	\$ -266.73
CUSTOMER DEPOSITS							
CUSTOMER GUARANTEE DEPOSITS	-909.80	-110770.17	-110770.17				
TOTAL CUSTOMER DEPOSIT	\$ -909.80	\$ -110770.17	\$ -110770.17	\$	\$	\$	
DEFERRED CREDITS							
DEPR OF INDEPENDENCE WATER SYSTEM		-240862.00	-240862.00				
TOTAL DEFERRED CREDITS	\$	\$ -240862.00	\$ -240862.00	\$	\$	\$	
LONG TERM DEBTS							
MORTGAGE PAYABLE OFFICE BUILDING	782.50	-168952.84					-168952.84
MORTGAGE PAYABLE WATER LINE		-13200.24					-13200.24
BONDED INDEBTEDNESS		-1574600.00					-1574600.00
BONDED INDEBTEDNESS COVINGTON		-1120000.00					-1120000.00

Figure 17. (Continued)

KENTON COUNTY KENTUCKY
WATER DISTRICT #1
COMBINED FUND BALANCE SHEET
YEAR TO DATE ENDING
APRIL 30, 1981

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	TOTAL CURRENT PERIOD	TOTAL YEAR TO DATE	GENERAL REVENUE FUND	OPERATION AND MAINTENANCE FUND	WATER REVENUE BOND FUND	DEPRECIATION FUND	PLANT FUND
TOTAL LONG TERM DEBTS	\$ 782.50	\$-17103153.28	\$	\$	\$	\$	\$-17103153.28
CONTRIB CONSTRUCTION							
CONTR IN AID OF CONSTRUCTION - MAINS		-1556148.16	-1556148.16				
SERVICE APPLICATIONS	-9491.90	-21775.73	-21775.73				
COVINGTON SERVICES APPLICATIONS	116.90						
DEFERRED ASSESSMENTS							
TOTAL CONTRIB CONSTRUCT	\$ -9375.00	\$ -1617923.89	\$ -1617923.89	\$	\$	\$	\$
TOTAL LIABILITIES	\$ -8775.99	\$-1918231.52	\$ -1973011.49	\$ -88818.25	\$	\$	\$-17103421.78

Figure 17. (Continued)

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PAGE 7

MELTON COUNTY KENTUCKY
WATER DISTRICT #1
COMBINED FUND BALANCE SHEET
YEAR TO DATE ENDING
APRIL 30, 1981

TOTAL CURRENT PERIOD	TOTAL YEAR TO DATE	GENERAL REVENUE FUND	OPERATION AND MAINTENANCE FUND	WATER REVENUE BOND FUND	DEPRECIATION FUND	PLANT FUND
\$ 21102.20	\$ 11576349.39	\$ -1373337.37	\$ 10069.06	\$ 3857456.22	\$ 535939.88	\$ 853721.60
FUND BALANCES						

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Figure 17. (Continued)

liabilities. A final or total line follows, which is entitled fund balance. Each account is printed in the order requested by the utility and as established in the account master file, using a print line coding system.

Figure 18 is an example of the statement of revenue and expenditures, which is also printed at the close of the accounting period. The statement of revenue and expenditure serves the purpose of showing, in one report, the earnings applicable to a particular period, which coincides with the reporting period of the balance sheet, and the expenses during the same period, and indicates the results of the periodic operation. It essentially shows the results of the utility's profit-related or fund balancing activities during a specific period. It is important because it reflects the ability of the utility to meet its financial obligations. In summary, the statement of revenue and expenditures may be generally described as a report that documents the continuous cash flow of the utility. It lists the revenues and expenditures recorded by the utility. Across the top of this report are printed current period actual expenditures - percent, year to date actual expenditures - percent, year to date budgeted amount, budgeted annual amount, variance year to date balance and percent. Down the side of the report are printed, by fund, all the revenue accounts and expenditure accounts, with a balancing total by each fund.

As an example of the information in the report, the first page starts with the general fund and continues until all of the general fund items are completed. The report then moves to the next fund. The "minus" sign indicates resource or money received by the utility. The absence of the "minus" sign indicates an expense or money flowing out of the utility. Using the rent from water property (fifth line up from the bottom of the first sheet of Figure 18) as an example, KCWD received \$1,925.00 for the current period (month of April) which constitutes 0.6 percent of the current period's general fund revenue. This makes the year to date (January 1 through April 30) cumulative value for rents \$7,600.00, which is 0.7 percent of the year to date total revenue received for the general fund. The budget estimated an annual revenue of \$21,800 from rents, which means that four-twelveth or \$7,265.94 should be received year to date as of April 30. The variance year to date balance is \$334.06 (budget minus actual) more than was estimated. The \$7,600.00 received by KCWD is 104.6 percent of the budget estimate for the four months. This principle is followed throughout the statement of revenues and expenditures for each of the five funds. The last page of the report provides a balancing figure for the entire utility, or a difference between revenue and expenditures.

Essentially, both the balance sheet report and the statement of revenue and expenditure report illustrate the nature and trends of current changes affecting the financial condition of the utility. Each of these monthly reports becomes one of a series of documents that develops into a continuous historical financial record of the utility.

Since these reports are produced on a monthly basis at KCWD, they are considered as interim financial reports. Nevertheless, they follow the

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KENTON COUNTY KENTUCKY
WATER DISTRICT #1
STATEMENT OF REVENUES AND EXPENDITURES
FOR THE PERIOD ENDING
APRIL 30, 1981

PAGE 1

GENERAL REVENUE FUND	CURRENT YEAR		FISCAL YEAR		PERCENT		VARIANCE YEAR TO DATE	
	CUR PERIOD	PERCENT	YEAR TO DATE	PERCENT	YEAR TO DATE	ANNUAL AMT	BALANCE	PERCENT
REVENUE								
WATER SALES	-306130.89	40.6	-936370.79	89.0			-936370.79	
COVINGTON WATER SALES								
INDEPENDENCE WATER SALES	-14583.81	8.3	-57226.27	5.5			-58224.27	
PENALTIES	-1239.82	.6	-9874.81	.9			-9874.81	
COVINGTON PENALTIES								
INDEPENDENCE PENALTIES	-284.09	.1	-1217.72	.1			-1217.72	
SERVICE RELUCATION			-170.00				-170.00	
METER TEST			-20.00				-20.00	
COVINGTON METER TEST								
TURN ON FEES	-104.00		-363.00				-363.00	
COVINGTON TURN-ON FEES								
RENTS FROM WATER PROPERTY	-1723.00	.8	-7800.00	.7			-7336.06	126.6
RENT FROM COVINGTON WATER PROPERTY								
MATERIAL SOLD	-423.86	1.3	-15181.04	1.4			-8666.00	227.4
MISCELLANEOUS INCOME	-187.66	.1	-2190.07	.2			-2190.07	
COVINGTON MISC INCOME								

Figure 18. Statement of revenues and expenditures.

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KENTON COUNTY KENTUCKY
WATER DISTRICT #1
STATEMENT OF REVENUES AND EXPENDITURES
FOR THE PERIOD ENDING
APRIL 30, 1981

QUARTER PERIOD	PERCENT	A C Y U I L YEAR TO DATE	PERCENT	B U D G E T E D YEAR TO DATE	VARIANCE YEAR TO DATE BALANCE	PERCENT
INDEPENDENCE MISCELLANEOUS INCOME	-12.00		-56.00		-56.00	
COMMISSION ON SALES TAX	-262.82	.1	-262.62		-262.82	
DIVIDEND & INTEREST	-5354.10	1.6	-6756.12	.9	23523.86	29.3
TAYLOR HILL WATER AGREEMENT	-750.00	.2	-1000.00	.3	-250.00	
TAYLOR HILL WATER AGREEMENT - OTHER	-2332.07	.7	-6899.93	.7	-4567.86	
INDEP REIMBURSEMENT FOR SVC PERFORMED	-31.79		-760.71	.1	-728.92	
TOTAL REVENUE	\$ -357481.71	100.0	\$ -1051927.28	100.0	\$ -694445.57	6.0
EXPENDITURES						
OFFICE BUILDING LEASED PREMISES EXP	-27.67		4586.65	.3	4586.65	
INTEREST EXPENSE NOTES PAYABLE	2593.00	.7	10372.00	.9	10372.00	
BOND FUND	273.00		1094.00		1092.00	
TO INDEPENDENCE RENEWAL & REPL FUND			4989.86	.4	4989.86	
TO INDEPENDENCE MICHELSON FUND						
TO COVINGTON BOND FUND						
TO COVINGTON DEPRECIATION FUND						
TO BOND FUND	-6351.16	1.8	1682.58	.1	1682.58	

Figure 18. (Continued)

Page: 278

KENTON COUNTY KENTUCKY
WATER DISTRICT #1
STATEMENT OF REVENUES AND EXPENDITURES
FOR THE PERIOD ENDING
APRIL 30, 1981

	CURR PERIOD		A C T U A L		PERCENT		YEAR TO DATE		PERCENT		ANNUAL AMT		VARIANCE YEAR TO DATE	
TO GEN FUND	261429.89	77.3	1061261.30	100.8			59160.75	177500.00						1/61261.30
TO DEPRECIATION FUND														-59160.75
TO PLANT FUND	1454.37	.3	-100034.74	(10.4)										-109034.74
TOTAL EXPENDITURES	\$ 259371.41	76.6	\$ 1016259.65	(96.5)			\$ 59160.75	\$ 177500.00				\$	\$ 557039.99	\$ 5.0
BALANCE	\$ -78610.30	23.3	\$ -35867.63	5.4			\$ 11898.81	\$ 35700.00				\$	\$	
OPERATION AND MAINTENANCE FUND														
REVENUE														
FROM GENERAL FUND	-261429.89	100.0	-1061261.30	99.0										-1061261.30
FROM DEPRECIATION FUND			-2128.00	.2										-2128.00
TOTAL REVENUE	\$ -261429.89	100.0	\$ -1063389.30	100.0			\$	\$				\$	\$ -1063389.30	
EXPENDITURES														
SOURCE OF SUPPLY	1493.39	.7	4936.93	.5			8799.32	26400.00						-1862.39
PUMPING	65114.59	24.8	306954.91	28.8			257940.87	77380.00						49014.04
WATER TREATMENT	64476.80	18.9	176281.70	18.5			123254.36	36980.00						52927.36
TRANS & DISTRIBUTION	64140.76	16.8	141955.23	17.9			145085.49	43530.00						46849.74
CUSTOMER ACCOUNTS	17019.41	6.4	70439.45	6.5			55061.16	16520.00						15378.69
ADMIN & GENERAL MANAGEMENT	93149.40	20.2	197533.48	17.8			121787.82	36540.00						58745.86

Figure 18. (Continued)

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RENTON COUNTY KENTUCKY
WATER DISTRICT #1
STATEMENT OF REVENUES AND EXPENDITURES
FOR THE PERIOD ENDING
APRIL 30, 1971

PAGE 6

CHARTER PERIOD	PERCENT	YEAR TO DATE	PERCENT	YEAR TO DATE	ANNUAL AMT	VARIANCE YEAR TO DATE
						BALANCE PERCENT
WATER OF TAYLOR MILL SYSTEM	2731.71	.7	9501.55	.8		9501.55
COST OF WATERL SOLD	3526.85	1.4	1940.17	1.2		1940.17
TO PLANT FUND	10151.60	6.1	52155.64	6.8		52155.64
TOTAL EXPENDITURES	\$ 24001.16	94.6	\$ 101609.46	95.0	\$ 709929.00	\$ 306710.46
BALANCE	\$ -13428.90	5.1	\$ -46749.84	4.4	\$ 709929.00	\$ 213000.00
WATER REVENUE BOND FUND						
REVENUE						
FROM GENERAL FUND	6351.16	(6.1)	-1084.38	.1		-1084.38
TRANSFER FROM PLANT FUND			-2617482.00	95.5		-2617482.00
TRANSFER FROM IMPA REPA L BLD FND	-47000.00	94.7	-107000.00	3.9		-107000.00
DIVIDENDS & INTEREST	-11772.28	11.4	-10997.66	.9		-10997.66
TOTAL REVENUE	\$ -102421.10	100.0	\$ -2792182.04	100.0	\$	\$ -2792182.04
EXPENDITURES						
BONUS REDEEMED						
BONUS RECEIVED FOR COVINGTON						
INTEREST PAID						

Figure 18. (Continued)

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KENTON COUNTY KENTUCKY
WATER DISTRICT #1
STATEMENT OF REVENUES AND EXPENDITURES
FOR THE PERIOD ENDING
APRIL 30, 1981

PAGE: 5

CURRENT YEAR		BUDGETED YEAR		VARIANCE YEAR TO DATE	
ACTUAL	PERCENT	BUDGETED	PERCENT	BALANCE	PERCENT
CUR PERIOD	YEAR TO DATE	YEAR TO DATE	ANNUAL AMT		
INTEREST PAID FOR COVINGTON	367.50	26765.00	.9	26765.00	
TOTAL EXPENDITURES	\$ 367.50	\$ 26765.00	.9	\$ 26765.00	
BALANCE	\$ -102055.60	\$ -270597.04	99.0	\$	
DEPRECIATION FUND					
REVENUE					
FROM GENERAL FUND					
DIVIDENDS & INTEREST	-7565.01	-8651.20	100.0	-8651.20	
TOTAL REVENUE	\$ -7565.01	\$ -8651.20	100.0	\$ -8651.20	
EXPENDITURES					
TO GEN FUND		2128.00	24.9	4148.00	
TO PLANT FUND		7350.00	84.9	7350.00	
TO BOND FUND	97000.00	107000.00	1236.7	107000.00	
EXTRAORDINARY EXPENSE					
EXTRAORDINARY EXP COVINGTON					
TOTAL EXPENDITURES	\$ 97000.00	\$ 116478.00	1346.3	\$ 116478.00	
BALANCE	\$ 89434.99	\$ 107826.80	1246.3	\$	

Figure 18. (Continued)

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KENTON COUNTY KENTUCKY
WATER DISTRICT #1
STATEMENT OF REVENUES AND EXPENDITURES
FOR THE PERIOD ENDING
APRIL 30, 1981

	PERCENT		PERCENT		PERCENT		PERCENT		PERCENT		PERCENT	
	CURR PERIOD	PERCENT	YEAR TO DATE	PERCENT	YEAR TO DATE	PERCENT	YEAR TO DATE	PERCENT	YEAR TO DATE	PERCENT	YEAR TO DATE	PERCENT
REVENUE												
FROM GENERAL FUND	-1454.37	2.3	1,9034.74	4.2							109034.74	
FROM OCM FUND	-16151.60	45.7	-52155.64	1.91							-52155.64	
FROM DEPR FUND			-7350.00	.21							-7350.00	
TD/FROM HLND FUND			2612482.00	99.8							2612482.00	
INTEREST EARNED ON INVESTMENTS	-45229.61	72.0	-45229.61	1.61							-45229.61	
TOTAL REVENUE	\$ -62875.58	100.0	\$ 2616781.49	100.0	\$						\$ 2616781.49	
EXPENDITURES												
INTEREST ON MORTGAGE LOAN	671.87	1.0	2705.94	.11							2705.94	
AMORTIZATION EXPENSE	3464.00	5.4	3464.00	.11							3464.00	
DEPRECIATION EXPENSE	17332.00	212.1	17332.00	5.11							17332.00	
TOTAL EXPENDITURES	\$ 137467.87	218.7	\$ 139501.94	5.11	\$						\$ 139501.94	
BALANCE	\$ 74632.29	118.71	\$ 2756289.43	105.3	\$						\$	

Figure 18. (Continued)

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same format and use the same accounting principles and practices as the annual financial reports. Each of the interim reports is an integral part of the annual reporting period. Interim financial information is essential to provide management and other interested parties with timely data on the progress of the organization. These monthly reports provide the utility management with an insight into the financial condition of the utility as changes occur, and not just on an annual basis. Management can therefore effectively evaluate the operation of the utility and make changes for the balance of the annual period. However, caution must be observed because all financial transactions may not be represented within one single monthly accounting period.

COMPUTER PROGRAMS

All of the computer programs are written in American Standard COBOL to operate in the IBM 370 environment. The computer language and hardware were selected because of their widespread use.

Figure 19 is the FRS computer program general flow diagram. The first sheet of figure 19 shows the source data programs, reports, and files. The source data files provide data to two program areas shown on the second sheet. First, the accuracy of the data is verified by the trial balance, and then the data is used to update the cross matrix file (CMF). The CMF is the central point of the FRS programs, and is the source of all new data in the FRS reports. Each month, the CMF data is recorded on tape and saved in case the data base should become inaccurate. Some programs that function with the CMF can zero the CMF for the start of a new fiscal year, and can also be used to make corrections to the file. The CMF data is provided to the programs that produce the statement of revenue and expenditure report and the combined fund balance sheet. Other programs and files function with the two report programs to provide other than new (current) data that is needed for the reports.

The computer operations and programs are described in Volume II of this report. Specifically, Volume II contains operating instructions, data format, file layout, program flow diagrams, and program listings.

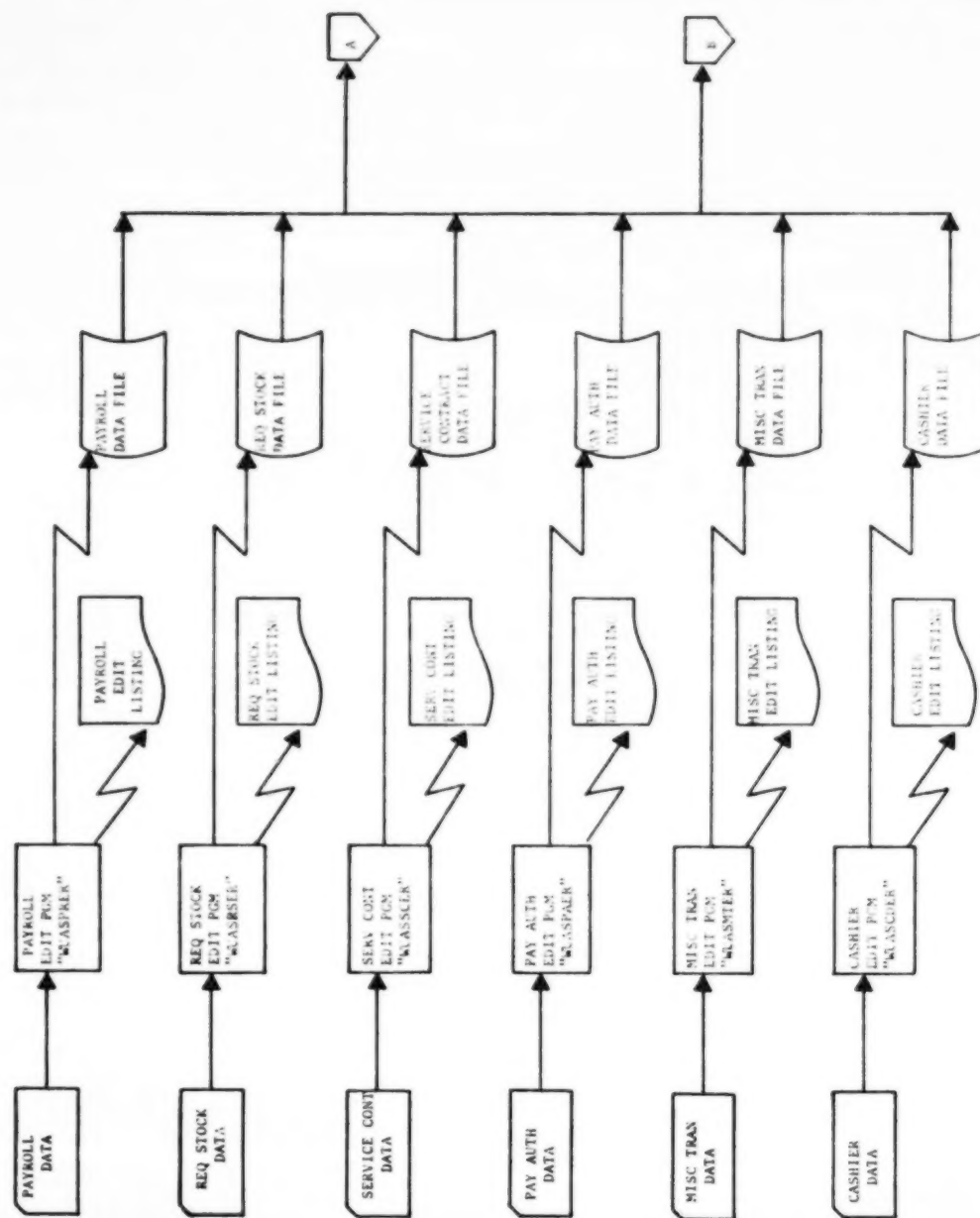


Figure 19. Financial Reporting System general flow diagram.

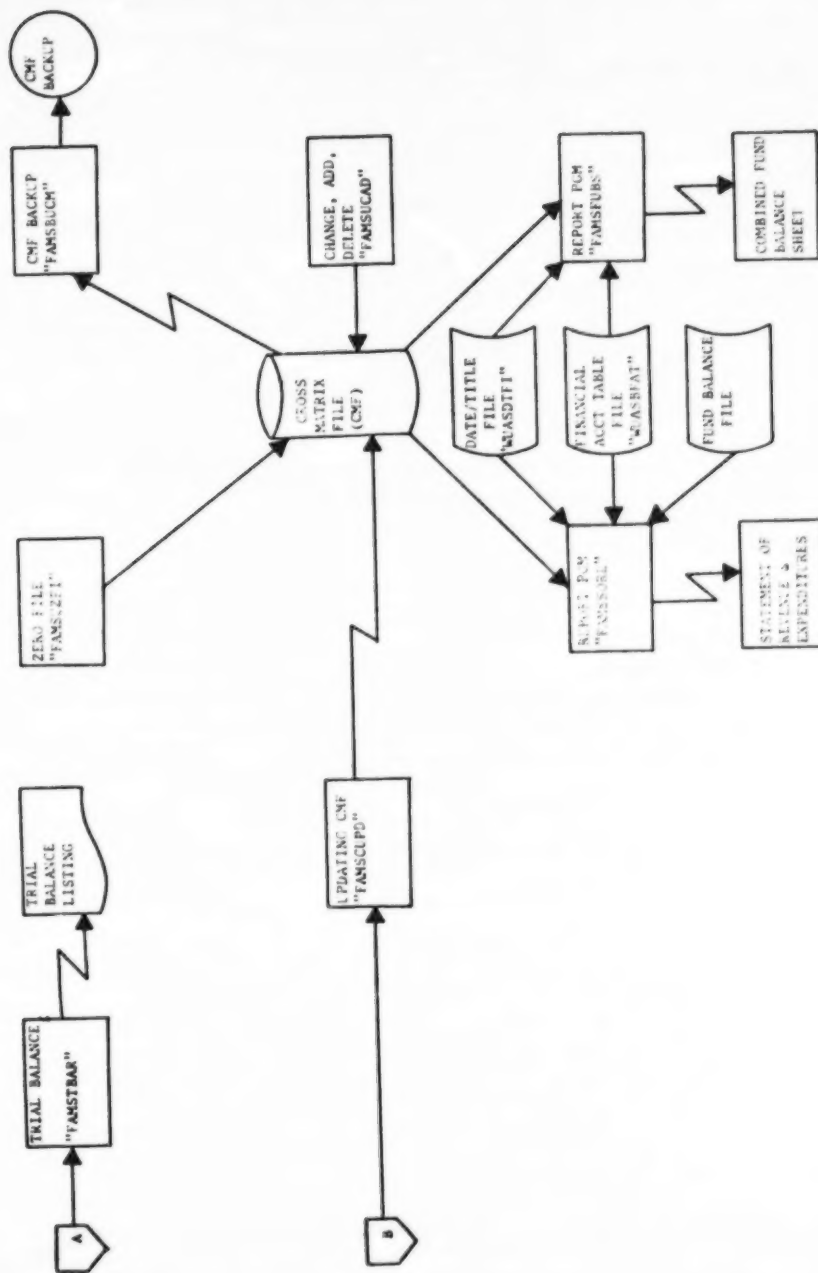


Figure 19. (continued)

REFERENCES

1. U.S. Congress, Senate. 1974. Safe Drinking Water Act. Public Law 93-523.
2. Gillean, James I., W. Kyle Adams, and Robert M. Clark. 1977. The Cost of Water Supply and Water Utility Management. Volume I & II. Municipal Environmental Research Laboratory, Office of Research and Development, U.S. EPA, Cincinnati, OH.
3. Clark, Robert M., James I. Gillean, William L. Britton, Rex D. Osborn, and John H. Brim. Development and Application of a Water Supply Cost Analysis System. Volume I & II. Municipal Environmental Research Laboratory, Office of Research and Development, U.S. EPA, Cincinnati, OH. 1979.
4. National Association of Regulatory Utility Commissioners. 1977. National Association of Regulatory Utility Commissioners - Uniform System of Accounts for Water Utilities. Washington, DC.
5. National Committee on Governmental Accounting. 1978. Governmental Accounting, Auditing, and Financial Reporting. Municipal Finance Officers Association of the United States and Canada. Chicago, IL.
6. Davis, Gordon B., CPA. 1975. Auditing & EDP. American Institute of Certified Public Accountants, Inc., New York, NY.
7. Grinnell, D. J., Kochanek, R. F., and Municipal Finance Officers Association. 1980. Water Utility Accounting, Second Edition. American Water Works Association. Denver, CO.